

## Exporting Revit Models into Navisworks

### **Abstract**

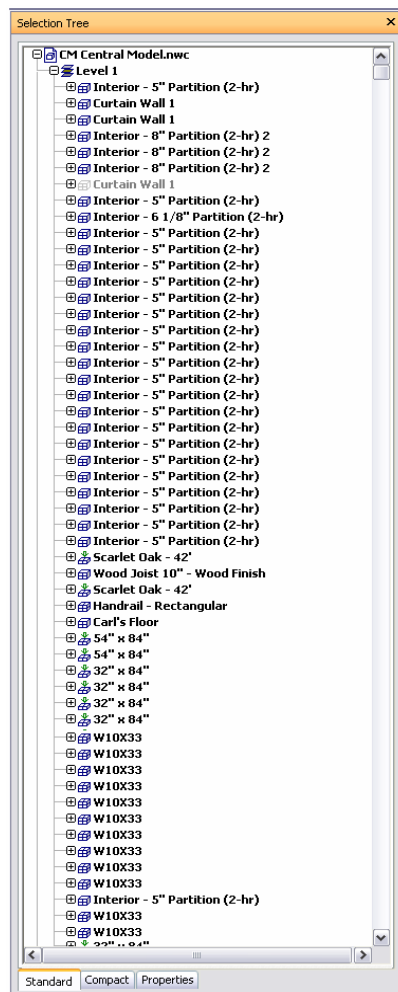
This document will provide a step-by-step process of how to properly export a Revit model into Navisworks, and important things that you must consider along the way.

### **Important Things to Consider...**

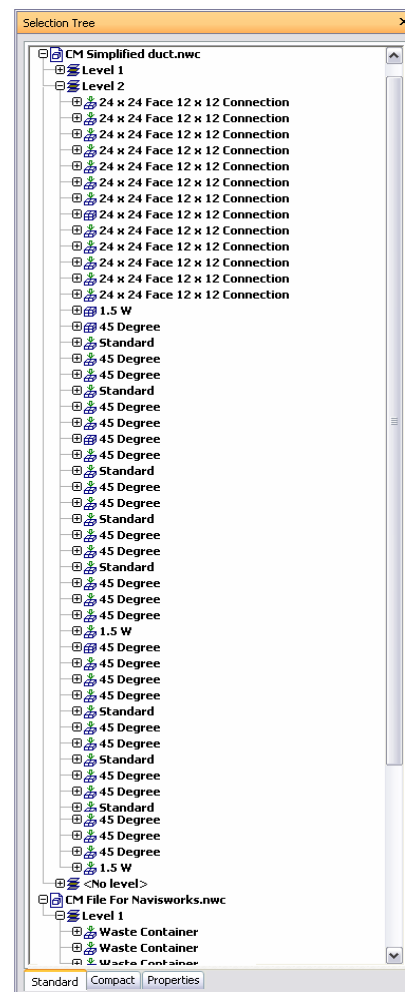
If your Revit model includes multiple building systems (such as architecture, structure, mechanical/plumbing, and lighting/electrical), the easiest way of importing these systems into Navisworks is by keeping all of the models separate from one another. Using multiple linked models instead of subsets within one main model will help organizing the separate systems within Navisworks. This will help with both clash detection and 4D modeling.

The image on the left (Figure 1.1) is a central Revit model imported into Navisworks with multiple subsets. As you can see, the different systems didn't get imported in an organized manner. Some structural elements are intermixed with the interior finishes, curtain walls, and trees. This makes it extremely difficult to find, hide, or select specific items when using clash detection, or when generating a 4D schedule/video. The exact opposite is shown in the picture on the right (Figure 2.2). The entire mechanical duct is in one place. This makes for shorter subdivisions, which helps in searching for specific items and hiding/selecting entire systems within the model.

**Figure 1.1**  
**Multiple Subsets**  
**Used - Bad**



**Figure 2.2**  
**Separately Linked**  
**Models - Good**



It's very important that the origin between all of the linked models remains the same. If they are slightly off, then the models will not properly align when importing them into Navisworks (as shown in Figure 1.3 below).



Figure 1.3

This is why it's important to properly manage and refresh model links in Revit (see Figure 1.4 below).

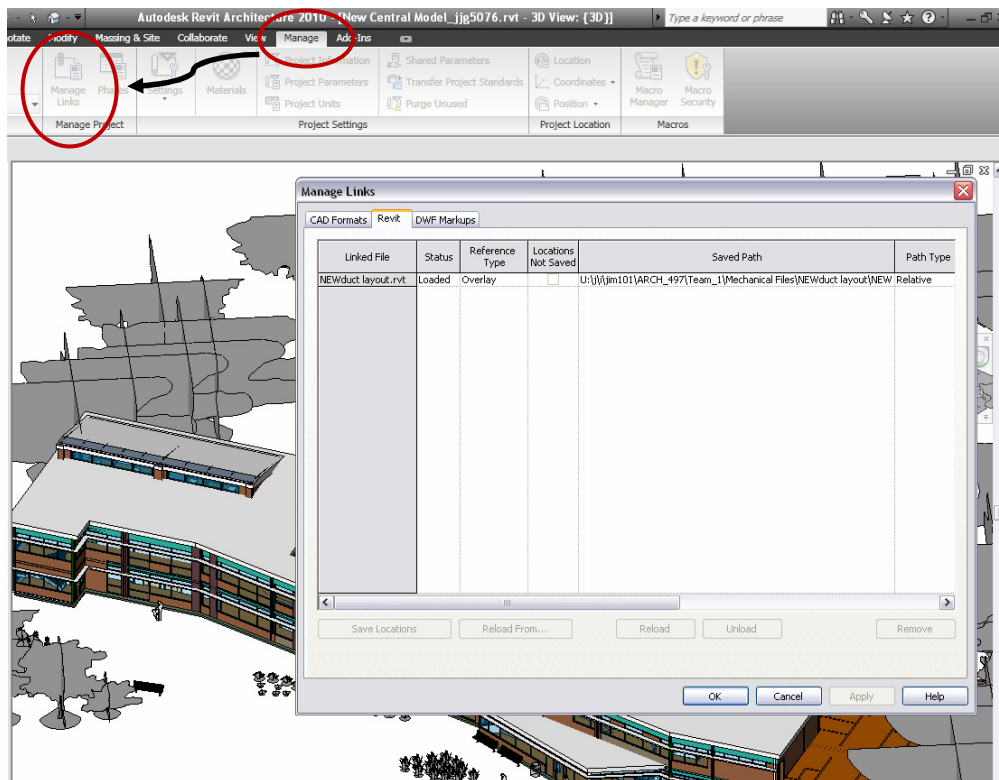


Figure 1.4

### How to Export...

After all of the links have been removed and just the elements of your system remain, you can easily export the model into Navisworks by going to “Add-Ins, External Tools, and then click on the Navisworks title dropdown”. It’s important to change the Navisworks settings before saving the export. You want to make sure that for “Coordinates”, you select “Project Internal”, and for “Export”, you select “Entire Project” (shown in Figure 1.5 below). After hitting “OK” and choosing your saved location, you then simply have to open Navisworks, go to “File, Open” and select the file that you have just saved. To add in any other additional systems, simply follow the same steps, except while in Navisworks, you should choose “File, Append” to overlay the separate models in the same Navisworks file (instead of “File, Open”).

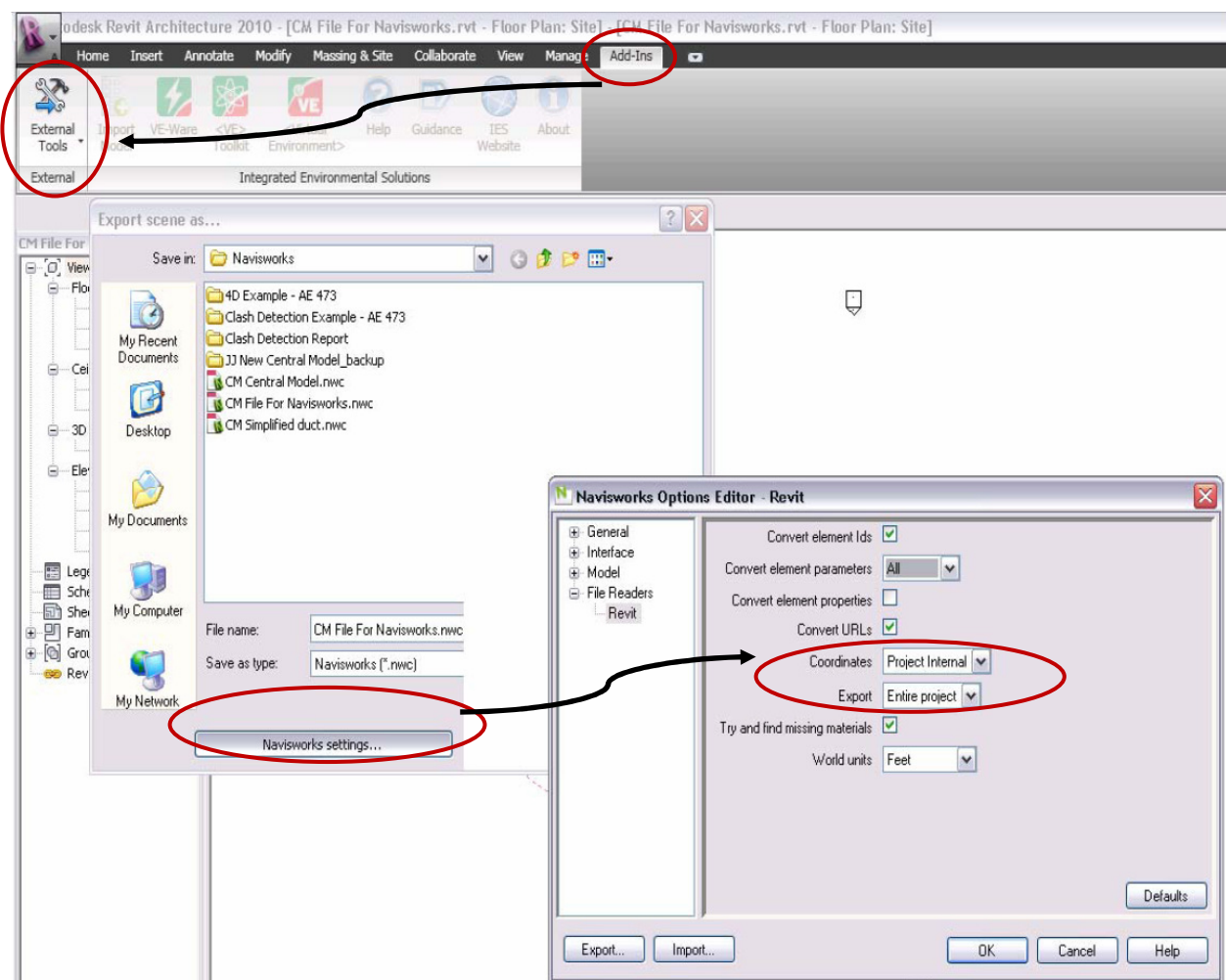
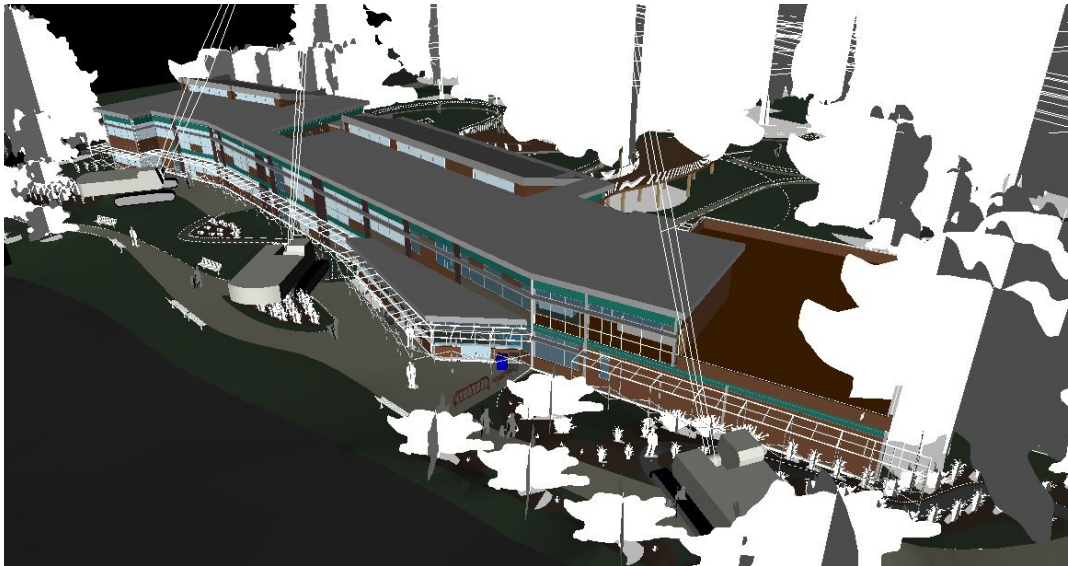


Figure 1.5

If everything is imported into Navisworks correctly, and all of the considerations above have been followed, then each of the systems should line up perfectly. The picture shown below (Figure 1.6) is an example of four separate Revit models (architectural, structural, mechanical, and site logistics) in one coordinated Navisworks model.



*Figure 1.6*